Number of gauge	Approximate thickness in fractions of an inch	Approximate thickness in decimal parts of an inch	Approximate thickness in millimeters	Weight per square foot in ounces avoir- dupois	Weight per square foot in pounds avoir- dupois	Weight per square foot in kilo- grams	Weight per square meter in kilograms	Weight per square meter in pounds avoirdupois
34 35 36 37 38	11/1280 5/640 9/1280 17/2560 1/160	.00859375 .0078125 .00703125 .006640625 .00625	.21828125 .1984375 .17859375 .168671875 .15875	5½ 5 4½ 4½ 4¼ 4	.34375 .3125 .28125 .265625 .25	.1559 .1417 .1276 .1205 .1134	1.678 1.526 1.373 1.297 1.221	3.70 3.36 3.03 2.87 2.69

The same and no other shall be used in determining duties and taxes levied by the United States of America on sheet and plate iron and steel. But this subchapter shall not be construed to increase duties upon any articles which may be imported.

(Mar. 3, 1893, ch. 221, §1, 27 Stat. 746.)

#### REFERENCES IN TEXT

This subchapter, referred to in text, was in the original "this act", meaning act Mar. 3, 1893, ch. 221, 27 Stat. 746, which is classified to sections 206 to 208 of this title.

## § 207. Preparation of standards by Secretary of Commerce

The Secretary of Commerce is authorized and required to prepare suitable standards in accordance with section 206 of this title.

(Mar. 3, 1893, ch. 221, §2, 27 Stat. 746; Feb. 14, 1903, ch. 552, §10, 32 Stat. 829; Mar. 4, 1913, ch. 141, §1, 37 Stat. 736.)

#### CHANGE OF NAME

Act Mar. 4, 1913, created Department of Labor, and renamed Department of Commerce and Labor as Department of Commerce.

### TRANSFER OF FUNCTIONS

Act Feb. 14, 1903, transferred National Bureau of Standards from Treasury Department to Department of Commerce and Labor.

## § 208. Variations

In the practical use and application of the standard gauge esablished  $^1$  in section 206 of this title a variation of  $2\frac{1}{2}$  percent, either way may be allowed.

(Mar. 3, 1893, ch. 221, §3, 27 Stat. 746.)

### SUBCHAPTER IV—SCREW THREADS

# §§ 208a to 212. Repealed. Pub. L. 89–554, §8(a), Sept. 6, 1966, 80 Stat. 644, 646

Sections, acts July 18, 1918, ch. 156, §§1–5, 40 Stat. 912, 913; Mar. 3, 1919, ch. 96, 40 Stat. 1291; Apr. 16, 1926, ch. 148, 44 Stat. 297, created Commission for the Standardization of Screw Threads and provided for composition of Commission, its duties, and pay.

# SUBCHAPTER V—STANDARDS OF ELECTRICITY

## §§ 221, 222. Repealed. July 21, 1950, ch. 484, §13, 64 Stat. 370

Sections, act July 12, 1894, ch. 131, §§1, 2, 28 Stat. 101, 102, related to units of electrical measure. See sections 223 and 224 of this title.

## § 223. Units of electrical measure

From and after July 21, 1950, the legal units of electrical and photometric measurement in the

United States of America shall be those defined and established as provided in the following paragraphs.

#### Resistance-ohm

The unit of electrical resistance shall be the ohm, which is equal to one thousand million units of resistance of the centimeter-gram-second system of electromagnetic units.

### **Current-ampere**

The unit of electric current shall be the ampere, which is one-tenth of the unit of current of the centimeter-gram-second system of electromagnetic units.

## Electromotive force and electric potential-volt

The unit of electromotive force and of electric potential shall be the volt, which is the electromotive force that, steadily applied to a conductor whose resistance is one ohm, will produce a current of one ampere.

## Quantity-coulomb

The unit of electric quantity shall be the coulomb, which is the quantity of electricity transferred by a current of one ampere in one second.

#### Capacitance-farad

The unit of electrical capacitance shall be the farad, which is the capacitance of a capacitor that is charged to a potential of one volt by one coulomb of electricity.

### Inductance-henry

The unit of electrical inductance shall be the henry, which is the inductance in a circuit such that an electromotive force of one volt is induced in the circuit by variation of an inducing current at the rate of one ampere per second.

## Power-watt

The unit of power shall be the watt, which is equal to ten million units of power in the centimeter-gram-second system, and which is the power required to cause an unvarying current of one ampere to flow between points differing in potential by one volt.

## Energy—joule; kilowatt—hour

The units of energy shall be (a) the joule, which is equivalent to the energy supplied by a power of one watt operating for one second, and (b) the kilowatt-hour, which is equivalent to the energy supplied by a power of one thousand watts operating for one hour.

## Intensity of light—candela

The unit of intensity of light shall be the candela, which is one-sixtieth of the intensity of one square centimeter of a perfect radiator, known as a "black body", when operated at the temperature of freezing platinum.

## Flux of light—lumen

The unit of flux of light shall be the lumen, which is the flux in a unit of solid angle from a source of which is the intensity is one candela.

<sup>&</sup>lt;sup>1</sup>So in original. Probably should be "established".